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ABSTRACT

This guide is designed to be used as a planning tool in the development of library media and information skills curricula that will teach students in grades K-12 how to make effective use of information both in the classroom and throughout their lives. The matrix organizes competencies and skills described in Wisconsin Department of Public Instruction teaching guides for English language arts, mathematics, reading, science, and social studies to help teachers and library media specialists develop integrated programs. More than 900 competencies and skills relating to library media and information access have been extracted from these guides, grouped under the following major concepts, and then further subdivided by types of skill: (1) location of information; (2) selection, evaluation, and synthesis of information; (3) organization of information; (4) presentation of information; and (5) enjoyment of literature. A number of statements from the curriculum guides about library media centers, materials selection, media use, computer use, literature and reading, and thinking skills are included. (MES)

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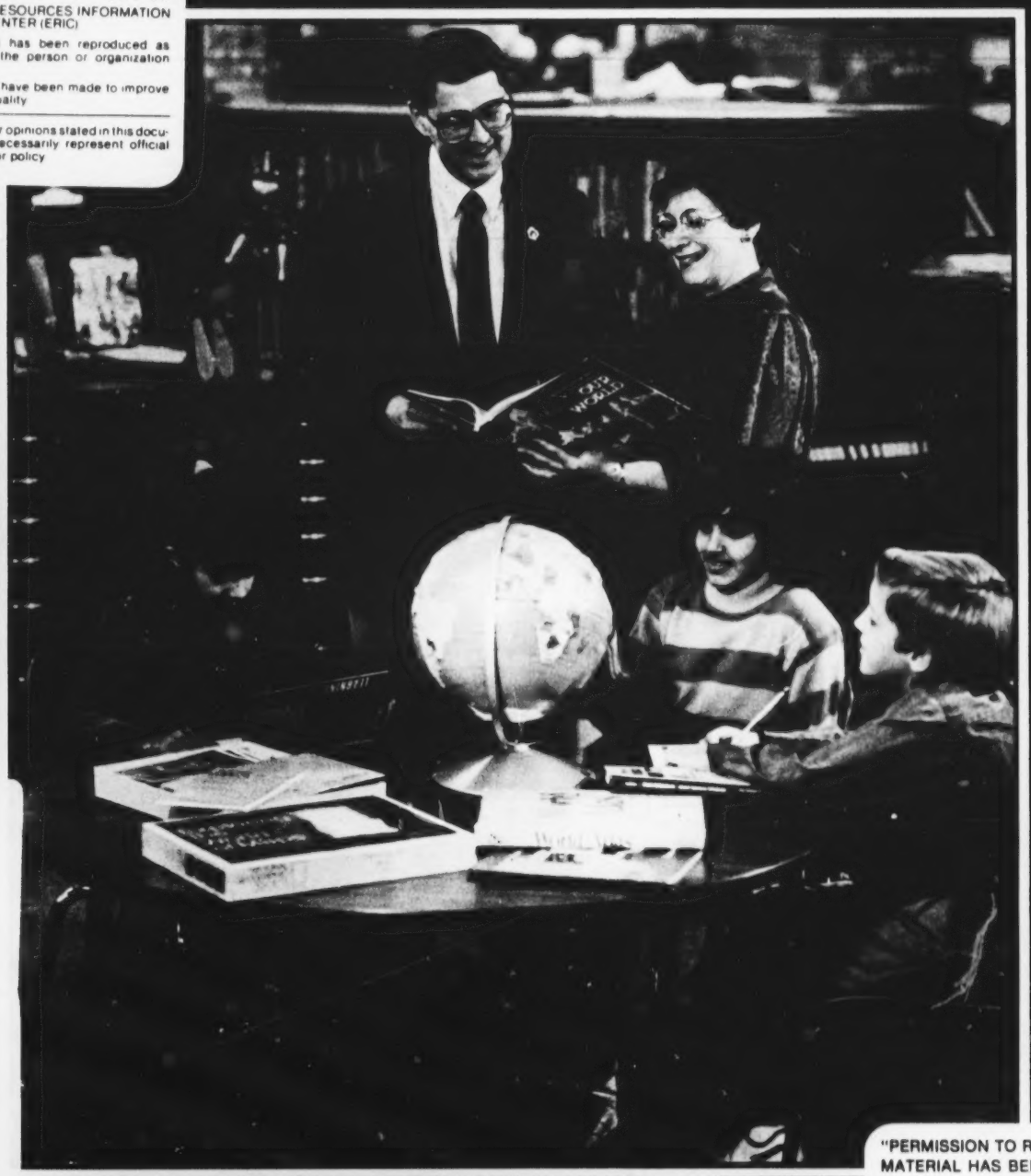

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

# Matrix for Curriculum Planning
# in
# Library Media and Information Skills Education

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# Table of Contents


Page

Foreword ..... v
Acknowledgments ..... vi

**Information Empowerment** ..... 1

**A Curriculum Development Tool**
Concepts and Skills ..... 3
Partnerships for Planning ..... 4
Additional Resources ..... 4
Matrix for Library Media and Information Skills Education ..... 6

**Establishing the Need**
Library Media Centers ..... 23
Materials Selection ..... 24
Use of Media ..... 27
Computer Use ..... 28
Literature and Reading ..... 30
Thinking Skills ..... 34

# Foreword

Today's students must develop the abilities to communicate, solve problems, and continue to learn if they are to survive and succeed in the ever-changing social, technological, and political environment of tomorrow. They also must acquire the specialized skills needed to locate and use the information now available in myriad forms from a variety of sources.

This *Matrix for Curriculum Planning in Library Media and Information Skills Education* is designed as a planning tool for those developing library media and information skills curriculums that will teach students in kindergarten through twelfth grade how to make effective use of information, both in the classroom and throughout their lives.

The book builds upon substantial curriculum planning and development undertaken by the Wisconsin Department of Public Instruction and uses as its base information skills and concepts extracted from departmental guides to curriculum planning in five academic subject areas: English language arts, mathematics, reading, science, and social studies.

The authors of this volume recommend that educators form partnerships for curriculum planning and implementation. I strongly urge teachers, library media specialists, curriculum directors, administrators, and others to join together in such partnerships and to use this volume as a guide in their efforts to develop information-literate citizens for the twenty-first century.

Herbert J. Grover
State Superintendent

# Acknowledgments

The compilers of this matrix wish to thank the Department of Public Instruction consultants listed below. They coordinated the work of statewide committees that produced the five subject-area curriculum guides from which library media and information-related skills and competencies have been extracted for this matrix. Thanks also to those subject-area committees for their awareness of and support for library media centers, resources, and professionals.

Donald L. Chambers, Consultant
Mathematics Education
*A Guide to Curriculum Planning in Mathematics*

Doris M. Cook, Consultant
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*A Guide to Curriculum Planning in Reading*

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*A Guide to Curriculum Planning in English Language Arts*

### *Media Directors*

The content and design of the matrix were presented and reviewed in workshop sessions at the State Superintendent's Conference for District Media Directors in September 1988. Thanks to all those who provided comments and to others who met with matrix compilers to provide feedback while work was in progress.

### *Department of Public Instruction*

Department of Public Instruction staff involved in the production of this book were Telise E. M. Johnsen, text editor; Patricia Braley, proofreader; Victoria Rettenmund, graphic designer; Neldine Nichols, photographer; and Kathy Addie, typesetter.

The information and library media skills that appear in this volume were initially input and manipulated with the aid of Apple IIgs and Macintosh microcomputers in the Department of Public Instruction's Microcomputer Center/Library.

# *Information Empowerment*

Definitions of library media skills and ideas about how they should be taught have evolved over the past 60 to 70 years toward a concept of information empowerment. What abilities does the student need in order to effectively access and use information? This is now the question to be answered by those who develop library media and information skills curriculums. Their task is to define information skills in the context of subject-area disciplines and then plan for and implement instruction in these skills in each subject area and throughout the elementary and secondary school program.

Teaching library media and information access skills should no longer be the responsibility of the library media specialist alone. Such instruction must be made an integral part of the overall school curriculum, and delivery of instruction must be based upon partnerships among library media specialists, teachers, curriculum specialists, and principals. All must also be involved in the planning of the program if it is to teach students the skills they will need to function in the Information Age.

Information power for the 1990s and beyond means having far more than the traditional location skills to apply to the information that now comes in many forms and from many sources. A library media and information skills curriculum, and indeed the entire kindergarten through twelfth grade program, must ensure that students can find, understand, and analyze information, integrate it with previous knowledge, and communicate it to others.

The challenges to educators are providing equitable intellectual and physical access to information for a diverse and rapidly changing population of students; developing literate listeners, viewers, and readers; providing leadership and expertise in use of instructional technologies; and teaching students how to take advantage of information networks. An integrated library media program addresses student needs for access to information and development of thinking skills. It also promotes lifelong learning.

*. . . the development of new technologies . . . broadened and redefined the mission of the school library media program . . . .*
*—American Association of School Librarians and Association for Educational Communications and Technology,* Information Power: Guidelines for School Library Media Programs

Development of a fully integrated library media and information skills curriculum requires intensive, comprehensive planning by teachers, media specialists, and other educators. Tools for this kind of planning are not readily available and do not always relate to specific subject-area disciplines.

This *Matrix for Curriculum Planning in Library Media and Information Skills Education* is designed as a planning tool for educators who realize that if their students are to be knowledgeable citizens of the Information Age, they must have the skills to make decisions based on critical analysis and evaluation of the information at hand.

*As trained teachers, school library media specialists often have subject matter expertise which can be a useful addition to the curriculum development process.*
*—Wisconsin Department of Public Instruction*, School Library Media Programs: A Resource and Planning Guide

## Concepts and Skills

The matrix organizes competencies and skills described in five Wisconsin Department of Public Instruction curriculum guides to help teachers and library media specialists develop integrated programs. The five books used are *A Guide to Curriculum Planning in English Language Arts, A Guide to Curriculum Planning in Mathematics, A Guide to Curriculum Planning in Reading, A Guide to Curriculum Planning in Science,* and *A Guide to Curriculum Planning in Social Studies.*

More than 900 competencies and skills relating to library media and information access skills have been extracted from these guides, grouped under five major concepts, and then further subdivided by types of skills.

**Concept 1. Locate Information.** This concept describes the student's ability to locate and access information in many forms and from many sources. The skills needed to take this first step are location skills and classification skills.

*Knowledge is of two kinds: we know a subject ourselves, or we know where we can find information upon it.*
*—James Boswell*

**Concept 2. Select, Evaluate, and Synthesize Information.** Once students have found the information they need, they must process it so that it will be useful to them. Concept 2 comprises reference skills, thinking skills, word analysis and reading skills, and information evaluation skills.

**Concept 3. Organize Information.** Processed information must be organized in meaningful ways so that it can be interpreted. Skills that support this activity are description and classification skills, analysis skills, and computer skills.

**Concept 4. Present Information.** The ability to communicate what has been learned is a final test of students' understanding of information they have found and analyzed. Oral and written skills and other media skills are needed to present information to their peers and teachers.

*Public school libraries can enhance reading instruction by offering literature-based activities that stress the enjoyment of reading as well as reading skills . . . .*
—*U. S. Department of Education*, What Works: Research about Teaching and Learning

**Concept 5. Enjoy Literature.** Another function of a library media and information skills curriculum is to make the world of literature a source of enjoyment and ideas. Skills and knowledge comprised by Concept 5 are comprehension skills, literary enjoyment, understanding story elements, understanding literary forms, listening skills, and literature and society.

The matrix, or chart, further arranges competencies and skills by subject area and by grade level: primary, intermediate, junior high, and senior high. Grade-level designations were determined by the subject matter specialists responsible for each guide. Curriculum guide pages on which each skill is stated or implied are given in parentheses or brackets.

## Partnerships for Planning

The *Matrix for Curriculum Planning in Library Media and Information Skills Education* is designed to suggest grade levels at which specific skills and competencies can best be integrated into the curriculum. The book presumes that teachers and library media specialists, curriculum coordinators, and administrators will form partnerships to cooperatively plan library media and information skills curriculums.

Library media professionals and teachers also can work together to teach appropriate skills at each grade level and in each primary-grade and subject-area classroom. Classroom teachers can bring to these partnerships in-depth knowledge of subject matter and students. Library media specialists bring knowledge of resources, instructional design, learning styles, and methods of integrating resources into lessons and activities. Curriculum planners working with this document are likely to realize that the authors of the five subject-area curriculum guides upon which the matrix is based viewed teaching of library media and information access skills as crucial to the thorough education of students for the twenty-first century. The concepts and skills identified are intrinsic to subject-specific learning as well as to general Information Age competence.

*An effective school library media program depends on the collaborative efforts of all those who are responsible for student learning.*
—Information Power: Guidelines for School Library Media Programs

The task of the team developing a library and information skills curriculum is crucial, then, if students are to be empowered with the skills they need to deal with information in the next century and if they are to become lifelong learners and educated citizens in a constantly and rapidly changing world.

## Additional Resources

This document includes an additional section that lists quotes from the five DPI subject-area curriculum guides which state or imply the need for strong library media centers in schools and for instruction in library media and information skills. These are arranged in broad general categories: library media centers, materials selection, use of media, computer use, literature and reading, and thinking skills.

This document and copies of the five DPI subject-area curriculum guides can be examined in a number of school libraries. Copies also can be

ordered from Publication Sales, Department of Public Instruction, P.O. Box 7841, Madison, WI 53707-7841; (608) 266-2188.

Orders and requests for information about DPI publications must include bulletin numbers: *Matrix for Curriculum Planning in Library Media and Information Skills Education* (Bulletin number ), *A Guide to Curriculum Planning in English Language Arts* (Bulletin number 6360), *A Guide to Curriculum Planning in Mathematics* (Bulletin number 6284), *A Guide to Curriculum Planning in Reading* (Bulletin number 6305), *A Guide to Curriculum Planning in Science* (Bulletin number 6270), and *A Guide to Curriculum Planning in Social Studies* (Bulletin number 6251).

*The activities and resources included in the library media program are determined by the educational goals and objectives of the school.*
—Information Power: Guidelines for School Library Media Programs

# Matrix for Library Media and Information Skills Education

## *Language Arts: Primary Grades*

| *Concept 1* **Locate Information** | *Concept 2* **Select, Evaluate, and Synthesize Information** | *Concept 3* **Organize Information** | *Concept 4* **Present Information** |
|---|---|---|---|
| **Location Skills**<br>*Grades K-3*<br>-browse through and use the library (46)<br>-get library cards and enroll in summer reading programs [59]<br><br>**Classification Skills**<br>*Grades K-2*<br>-alphabetize by first letter (21) | **Word Analysis and Reading Skills**<br>*Grades K-3*<br>-recognize main ideas (74) | **Description and Classification Skills**<br>*Grades K-3*<br>-put information in general categories or headings and order them [160]<br><br>**Analysis Skills**<br>*Grade K*<br>-compare and contrast illustrations of work (47)<br><br>**Computer Skills**<br>*Grades K-3*<br>-use a word processor (194)<br>-use a computer program that combines text and graphics (194)<br>-use electronic media to store and retrieve text [197] | **Oral and Written Skills**<br>*Grades K*<br>-talk about stories, pictures, films (46)<br>*Grades K-2*<br>-after hearing, reading, or watching a story, retell story in own words, incorporating major story parts (47, 54)<br>-show growth in speaking vocabulary (54)<br>*Grades K-3*<br>-develop skills in responding orally and in writing to varied forms of literature (41)<br><br>**Other Media Skills**<br>*Grades K-3*<br>-create a filmstrip of student stories (194)<br>-videotape a play with student actors (194)<br>-act out a favorite TV show (194) |

## *Language Arts: Intermediate Grades*

| | | | |
|---|---|---|---|
| **Location Skills**<br>*Grades 3-4*<br>-use the dictionary and thesaurus for elaboration of word meanings, and to develop locational skills (21)<br>*Grades 4-6*<br>-use the library (46)<br>-list local sources and get access to them [160] | **Reference Skills**<br>*Grades 5-10*<br>-use the dictionary for spelling (22) | **Computer Skills**<br>*Grades 4-6*<br>-use a data base for research (194)<br>-use a word processor to write and revise [197]<br>*Grades 5-6*<br>-use software that includes spelling checkers (22) | **Oral and Written Skills**<br>*Grades 4-6*<br>-develop skills in responding orally and in writing to varied forms of literature (41)<br>-prepare oral and written reports and presentations [112]<br><br>**Other Media Skills**<br>*Grades 4-6*<br>-make a filmstrip of a favorite book (194)<br>-write television shows (194)<br>-write stories that "branch" (194)<br>-read student stories over a class "radio" (194) |

*Numbers in parentheses indicate pages in* A Guide to Curriculum Planning in English Language Arts *on which library media and information skills are directly stated. Bracketed numbers indicate pages on which skills listed, while not directly stated, are implied.*

*Concept 5*

## Enjoy Literature

**Comprehension Skills**
*Grade K*
- look at story pictures (46)
- use words and pictures to understand story (47)

*Grades K-2*
- read silently from a variety of materials (46)
- after hearing or reading a poem, relate what the poem is about (54)
- describe what is happening in a picture (54)

*Grades K-3*
- develop visual literacy through the study of book illustrations (56)

*Grades 1-3*
- read literary works together in class (46)

**Literary Enjoyment**
*Grade K*
- attend library story hour (46)

*Grades K-3*
- watch story and other films (46)

*Grades 1-3*
- notice and repeat poetic or unusual uses of language (47)

**Understanding Story Elements**
*Grades K-2*
- relate when and where story takes place (54)

*Grades K-3*
- identify and describe characters in stories or plays (54, 74)

*Grades 1-3*
- relate illustrations to story elements (47)

**Understanding Literary Forms**
*Grades K-3*
- recognize, analyze, interpret, and evaluate literary works (41)
- learn literary forms and conventions as a means of appreciating and reacting to literature (41)

*Grades 1-2*
- listen to stories and poems read aloud from a wide variety of materials (46)

**Listening Skills**
*Grades K-3*
- visualize what is heard (74)

**Literature and Society**
*Grade K*
- relate story, poem, picture, film to own life and to surrounding world (46, 47)

*Grades K-3*
- gain an increased understanding of their culturally diverse, pluralistic heritage, including recognition of the relationship between a literary selection and the author's culture (41)

*Grades 1-3*
- relate literary work to self, family and friends, school and community (47)

**Comprehension Skills**
*Grades 4-6*
- use film and other audiovisual media (46)
- discuss why an author would write a work, why in this form (46)
- demonstrate ability to read, silently, texts suitable for age and ability (54)
- read and understand simple narrative and lyric poems (54)

**Literary Enjoyment**
*Grades 4-6*
- read literary works silently and aloud (46)
- pursue interests in books (46)
- study children's classics and award-winning books (46)
- compare different versions of a story (47)
- notice unusual and/or poetic uses of language (54)
- listen to and enjoy the sounds of well-written humorous/nonsense verse (57)
- come in contact with the writing of skilled authors [184]

**Understanding Story Elements**
*Grades 4-6*
- understand the characters, events, and descriptions (setting) when reading a literary work (54)
- recognize basic literary structure and conventions; character, plot, setting, rhyme, meter (54)

**Understanding Literary Forms**
*Grades 4-6*
- study literary forms and conventions (41)
- recognize, analyze, interpret, and evaluate literary works (41)
- relate one literary work to another (46)
- differentiate fact and opinion, cause and effect (46)
- experiment with various poetic and story forms (47)

**Listening Skills**
*Grades 4-6*
- visualize and understand vivid and unusual imagery of humorous verse (57)
- listen beyond plot or story (75)

**Literature and Society**
*Grades 4-6*
- gain an increased understanding of their culturally diverse, pluralistic heritage, including recognition of the relationship between a literary selection and the author's culture (41)
- relate literary works to self; family and friends; school and community; local, state, and world news of day (46, 47)

## *Language Arts: Junior High/Middle School*

**Location Skills**
*Grades 7-8*
- use the library and other sources for gaining and organizing additional information (46)
- search card catalog, periodical indices and list probable sources [106]

**Information Evaluation Skills**
*Grades 7-8*
- be able to express and understand diverse viewpoints [224]

**Computer Skills**
*Grades 7-8*
- use software that includes spelling checkers (22)
- use a computer prewriting program (194)
- use a spelling checker program (194)
- revise writing using a word processor (194)

**Oral and Written Skills**
*Grades 7-8*
- develop skills in responding orally and in writing to varied forms of literature (41)

**Other Media Skills**
*Grades 7-8*
- use film and other audiovisual media (46)
- produce a cable news show (194)
- write a story based on a TV show (194)
- write television or film scripts [197]
- understand how to change a story to become a film, TV, or radio script [197]

## *Language Arts: Senior High School*

**Location Skills**
*Grades 9-12*
- use the library (46)
- use online data bases, computer searches, information networks, and computer data bases (197)

**Reference Skills**
*Grades 9-12*
- gain practice in research skills (58)
- use an online data base (194)
- use electronic mail [197]

**Information Evaluation Skills**
*Grades 9-12*
- learn the legal restrictions on electronic data [197]
- be able to describe laws relevant to media use [197]
- be able to reach fair and reasonable judgments [224]

**Computer Skills**
*Grades 9-12*
- use software that includes spelling checkers (22)
- use a style checker on a story that the class is reading (194)

**Oral and Written Skills**
*Grades 9-12*
- develop skills in responding orally and in writing to varied forms of literature (41)
- independently select the appropriate medium of expression for a project of his or her choice [197]

**Other Media Skills**
*Grades 9-12*
- use audiovisual media (46)
- illustrate a report with computer graphics (194)
- create a game show for TV (194)
- produce a complete newscast (194)

**Comprehension Skills**
*Grades 7-8*
-discuss why an author would write a work, why in this form (46)
-demonstrate ability to read, silently, texts suitable for age and ability level (55)
-interpret imagery (76)
-suggest alternative resolutions to stories, plays (76)

**Literary Enjoyment**
*Grades 4-8*
-come in contact with the writing of skilled authors [184]
*Grades 7-8*
-read literary works silently and aloud (46)
-pursue interests in books (46)
-read classics and young adult books (46)
-recognize figurative and/or poetic language (55)
-listen to get pleasure/enjoyment (57,76)

**Understanding Story Elements**
*Grades 7-8*
-evaluate the strengths and weaknesses of various forms of literature for a given theme (45)
-recognize story elements: plot, characterization, setting, theme (47, 55)
-understand events, sequence of events (55)
-explore literary concepts of theme, point of view, and setting (55, 57)

**Understanding Literary Forms**
*Grades 7-8*
-study literary forms and conventions (41)
-recognize, analyze, interpret, and evaluate literary works (41)
-discover and distinguish fact and opinion, cause and effect, motive and result, fantasy and reality (46)
-relate one literary work to another (46)
-gain familiarity with various literary forms of prose and poetry (47)
-learn types and structures of a variety of literary works (47)
-show knowledge of different types of literary works (55)
-delineate structure of basic works in a variety of literary genres (55)
-discriminate differences in film, TV, and stage productions (76)
-compare a novel to the film version (194)
-compare two movies based on the same theme (194)

**Listening Skills**
*Grades 7-8*
-listen to pitch, stress, juncture as they add to stories, plays (76)

**Literature and Society**
*Grades 7-8*
-gain an increased understanding of their culturally diverse, pluralistic heritage, including recognition of the relationship between a literary selection and the author's culture (41)
-relate literary works to self; family and friends; school and community; local, state, and world news of day; historic persons and events (46, 47)
-examine the concept of stereotyping (57)

**Comprehension Skills**
*Grades 9-12*
-analyze the author's purpose (46)
-demonstrate ability to read, silently, texts suitable for age and ability level (55)
-read independently with knowledge (58)

**Literary Enjoyment**
*Grades 9-12*
-pursue and extend interests in books (46)
-read a wide variety of literary works (46)
-read classics and other quality books (46)
-understand and appreciate figurative and/or poetic language (55)

**Understanding Story Elements**
*Grades 9-12*
-learn about themes common in various types and periods of literature (47)
-understand characters and show ability to evaluate their actions (55)
-understand setting and its effects upon characters and events (55)
-understand events, the concept of plot (55)
-understand the concept of theme and . . . identify theme(s) in a given work (55)

**Understanding Literary Forms**
*Grades 9-12*
-learn literary forms and conventions as a means of appreciating and reacting to literature (41)
-recognize, analyze, interpret, and evaluate literary works (41)
-relate one literary work to another (46)
-discover and evaluate fact and opinion, cause and effect, motive and result, fantasy and reality (46)
-gain familiarity with major types of literature, both prose and poetry (47)
-recognize and read a variety of literary genres (55)
-demonstrate knowledge of a wide variety of literary types (55)
-compare film to a resulting TV show (194)
-compare two movies on the same theme from two countries (194)

**Literature and Society**
*Grades 9-12*
-gain an increased understanding of their culturally diverse, pluralistic heritage, including recognition of the relationship between a literary selection and the author's culture (41)
-relate self to literary work (46)
-develop perspectives for viewing works of literature; individual, community, national, world, and historical (47)
-understand and appreciate the contributions of ethnic cultures to the American literary heritage (58)
-be able to express cultural, personal, and aesthetic values and ideas [224]

## *Mathematics: Primary Grades*

| *Concept 1*<br>**Locate Information** | *Concept 2*<br>**Select, Evaluate, and Synthesize Information** |
|---|---|
| **Classification Skills**<br>*Grades K-3*<br>-explore the concept of ordered pairs by linking such things as objects and names [55], (59)<br>-an algorith for alphabetizing a list of names is an example [65]<br>-follow simple directions written in ordinary English and involving at most four steps (68)<br>-sort sets on the basis of one attribute (68) | **Reference Skills**<br>*Grades K-3*<br>-gather data by counting, by performing simple experiments, by measuring, or from various media sources such as newspapers, magazines, and almanacs (39) |

## *Mathematics: Intermediate Grades*

| | |
|---|---|
| **Classification Skills**<br>*Grades 4-6*<br>-order decimal fractions [17], (19)<br>-sort sets on the basis of two or three attributes (68) | **Reference Skills**<br>*Grades 4-6*<br>-become familiar with the use of numbers and graphs in newspapers, magazines, television, and other sources within society (48)<br>-gather data by conducting a survey or by carrying out a simulation (49)<br>-obtain data from various sources, such as pictures, tables, and graphs and relevant resources [74]<br>**Thinking Skills**<br>*Grades 4-6*<br>-identify when a problem exists and devise problems on one's own [74]<br>-read and understand problems [74]<br>-establish subgoals for solving parts of a problem [74]<br>**Information Evaluation Skills**<br>*Grades 4-6*<br>-explore kinds of data generated by others, and evaluate the source of those data (49) |

## *Mathematics: Junior High/Middle School*

| | |
|---|---|
| | **Reference Skills**<br>*Grades 7-8*<br>-become familiar with the U.S. Census (48)<br>**Information Evaluation Skills**<br>*Grades 7-8*<br>-recognize that the quality of a set of data depends on the source . . . and on the gathering techniques used (49) |

## *Mathematics: Senior High School*

| | |
|---|---|
| | **Thinking Skills**<br>*Grades 9-12*<br>-formulate appropriate questions for a given object and construct an experiment to meet that objective (49) |

*Numbers in parentheses indicate pages in* A Guide to Curriculum Planning in Mathematics *on which library media and information skills are directly stated. Bracketed numbers indicate pages on which skills listed, while not directly stated, are implied.*

| *Concept 3*<br>**Organization Information** | *Concept 4*<br>**Present Information** | *Concept 5*<br>**Enjoy Literature** |
|---|---|---|
| **Description and Classification Skills**<br>*Grades K-3*<br>–recognize and use patterns, make generalizations [74]<br><br>**Analysis Skills**<br>*Grades K-3*<br>–use organized lists and diagrams to show properties of and relationships among geometric figures (41)<br>–use simple charts for reference, comparisons, and recordkeeping (60)<br><br>**Computer Skills**<br>*Grades K-3*<br>–use computers to perform procedures and especially iterative procedures to solve problems [10] | | |
| | | |
| **Analysis Skills**<br>*Grades 4-6*<br>–organize and make interpretations from gathered data [45]<br>–use a graphic representation of a set of data to recognize and describe patterns such as increases, decreases, or trends (49) | | |
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| | | |
| | | |
| **Analysis Skills**<br>*Grades 9-12*<br>–explore different methods of charting a given set of data (50)<br><br>**Computer Skills**<br>*Grades 9-12*<br>–use a random number table and a set of random numbers generated by a computer (49) | | |

## *Reading: Primary Grades*

| *Concept 1*<br>**Locate Information** | *Concept 2*<br>**Select, Evaluate, and Synthesize Information** | *Concept 3*<br>**Organize Information** |
|---|---|---|
| | **Reference Skills**<br>*Grades 2-3*<br>-preview selection for type of information and its organization (49)<br>-conduct simple research projects related to content area or personal interest (61)<br>-learn how to read reference and content-area materials (66)<br><br>**Thinking Skills**<br>*Grades K-2*<br>-ask how and why questions (55)<br><br>**Word Analysis and Reading Skills**<br>*Grades K-1*<br>-listen and become aware of language problems (39)<br>*Grades 1-2*<br>-relate new topic to known words and word meanings (33)<br>-listen and develop listening vocabulary (33)<br>-use word analysis strategy in oral and written context (39)<br>-read for meaning and comprehension (39)<br>-begin to develop sound/letter correspondence (39)<br>-listen to informational books read aloud and read informational books (49)<br><br>**Information Evaluation Skills**<br>*Grades 1-2*<br>-see that personal likes and dislikes influence thinking (55) | |

## *Reading: Intermediate Grades*

| | | |
|---|---|---|
| **Location Skills**<br>*Grades 4-6*<br>-use the dictionary and thesaurus for elaboration of word meanings, and to develop locational skills (62) | **Reference Skills**<br>*Grades 4-6*<br>-use the dictionary for studying (34)<br>-begin to learn text selection techniques (searching for writer's background/credentials; studying preface; checking publication date) [56]<br><br>**Word Analysis and Reading Skills**<br>*Grades 4-6*<br>-independently learn word meanings (34)<br>-set purpose and activate prior knowledge (50) | |

*Numbers in parentheses indicate pages in* A Guide to Curriculum Planning in Mathematics *on which library media and information skills are directly stated. Bracketed numbers indicate pages on which skills listed, while not directly stated, are implied.*

| *Concept 4* | *Concept 5* | |
|---|---|---|
| **Present Information** | **Enjoy Literature** | |
| **Oral and Written Skills**<br>*Grades K-1*<br>-tell their own story (33)<br>*Grades K-2*<br>-share information about topics (49)<br>-talk with teacher about what has been read (65)<br>*Grades K-3*<br>-after hearing, reading, or watching a story, retell story in own words, incorporating major story parts [33, 44]<br>*Grades 2-3*<br>-respond to reading materials through writing (61) | **Comprehension Skills**<br>*Grades K-2*<br>-use wordless picture books to develop the concept of a story (44)<br>-make predictions based on illustrations and titles (49)<br>*Grades K-3*<br>-read silently from a variety of materials [66]<br>*Grades 1-2*<br>-use word meanings to comprehend story (33)<br><br>**Literary Enjoyment**<br>*Grades K-3*<br>-listen and identify rhyming elements of words or phrases [39]<br>*Grades 1-2*<br>-identify criteria for . . . a good story (55)<br>-have opportunities for book projects (drawing, sharing, discussing) (60)<br>-self-respect reading materials according to interests (65) | *Grades 1-3*<br>-become acquainted with classics of children's literature (46)<br><br>**Understanding Story Elements**<br>*Grades 1-2*<br>-establish simple criteria to evaluate a character's actions and feelings (55)<br><br>**Understanding Literary Forms**<br>*Grades 1-2*<br>-develop criteria for determining whether a story is true or based on fantasy (55)<br>*Grades 2-3*<br>-compare stories' similarities and differences (44)<br>-become acquainted with various literary forms and the identification of each (44)<br>-identify and interpret different story forms (44)<br><br>**Listening Skills**<br>*Grades K-2*<br>-listen and develop sense of stories (44)<br>*Grades K-3*<br>-listen to stories and poems read aloud from a wide variety of materials [33, 39, 44, 65, 66] |
| | | |
| | **Literary Enjoyment**<br>*Grades 4-6*<br>-read literary works silently and aloud (66, 118, 121)<br><br>**Understanding Story Elements**<br>*Grades 4-6*<br>-internalize story structure (45) | **Understanding Literary Forms**<br>*Grades 4-6*<br>-refine identification and interpretation of different story forms (45)<br>-study various literary forms and interpretations (45)<br><br>**Listening Skills**<br>*Grades 4-6*<br>-listen as teacher reads aloud (66) |

## *Reading: Junior High/Middle School*

| *Concept 1*<br>**Locate Information** | *Concept 2*<br>**Select, Evaluate, and Synthesize Information** | *Concept 3*<br>**Organize Information** |
|---|---|---|
| **Location Skills**<br>*Grades 7-8*<br>-use the library and other sources for gaining and organizing additional information [51] | **Reference Skills**<br>*Grades 7-8*<br>-apply all components of the dictionary to gather data on selected topics and to solve problems (34)<br>-develop reference skills for gaining information from a variety of materials (51)<br>-use library and reference materials for gathering information (67)<br>**Information Evaluation Skills**<br>*Grades 7-8*<br>-recognize different terminology for similar concepts (34) | **Description and Classification Skills**<br>*Grades 7-8*<br>-summarize to integrate information [23] |

## *Reading: Senior High School*

| | | |
|---|---|---|
| | **Reference Skills**<br>*Grades 9-12*<br>-compare and contrast dictionaries (34)<br>-develop a personal system for enriching vocabulary (34)<br>**Word Analysis and Reading Skills**<br>*Grades 9-12*<br>-utilize text structure for review of text and task, set purpose, determine appropriate strategies (51)<br>-accommodate a wide variety of expository materials (51) | |

| *Concept 4*<br><br>**Present Information** | *Concept 5*<br><br>**Enjoy Literature** | |
|---|---|---|
| | **Understanding Literary Forms**<br>*Grades 7-8*<br>-refine interpretation of different literary forms (45)<br>-compare and contrast different genres on the same theme (45) | |
| | | |
| | **Comprehension Skills**<br>*Grades 9-12*<br>-be able to define words related to use (34)<br>-be able to evaluate the appropriateness of an author's choice of words (34) | **Literary Enjoyment**<br>*Grades 9-12*<br>-establish integrity in their own evaluation of literature (45)<br><br>**Literature and Society**<br>*Grades 9-12*<br>-articulate author's ideas while remaining open to new (45) |

## *Science: Primary Grades*

| *Concept 1* **Locate Information** | *Concept 2* **Select, Evaluate and Synthesize Information** | |
|---|---|---|
| **Classification Skills**<br>*Grades K-2*<br>-classify and order items using one variable (17, 81) | **Reference Skills**<br>*Grades K-2*<br>-make accurate observations of objects or events, using the senses or instruments to aid the senses (83)<br>*Grades K-3*<br>-make observations of the subjects around them (118)<br>-use variety of resources in seeking information about objects and events (83, 101) | **Thinking Skills**<br>*Grades K-2*<br>-use observations to draw simple conclusions (17)<br>-compare physical properties (17), [81]<br>-use trial and error to solve problems (81)<br>-predict possible results based on past experiences (81)<br>-see relationships among objects and events (83)<br>-note exceptions to the patterns (83)<br>-use observations already made to predict new observations (83) |

## *Science: Intermediate Grades*

| | | |
|---|---|---|
| | **Reference Skills**<br>*Grades 4-6*<br>-make direct measurements [71]<br>-use a variety of resources in seeking information about objects and events (101)<br>-make accurate observations of objects or events, using the senses or instruments to aid the senses (101)<br>-use standard measuring devices to collect data (101) | **Thinking Skills**<br>*Grades 4-6*<br>-use initial information to ask questions that are structured so that they can be answered by investigation (101)<br>-use observations and known information to predict events (101)<br>-use observations to make inferences (102) |

## *Science: Junior High/Middle School*

| | | |
|---|---|---|
| **Location Skills**<br>*Grades 7-8*<br>-use a variety of resources in seeking information about objects and events (124) | **Reference Skills**<br>*Grades 7-8*<br>-use standard measuring devices to collect data (125)<br>**Thinking Skills**<br>*Grades 7-8*<br>-study objects or events (or descriptions of them) to ask informed questions (124)<br>-use initial information to ask questions that are structured so that they can be answered by investigation (124)<br>-use information and questions to generate statements that describe expected results of investigation (124) | -use experience to estimate values of quantitative data (125)<br>-use observations and known information to predict events (125)<br>-use evaluation and judgments to make inferences based on observation (125)<br>-use applied mathematics as a means of analyzing data (125)<br>-note related changes in variables (125)<br>**Information Evaluation Skills**<br>*Grades 7-8*<br>-select data that are relevant and accurate (125) |

## *Science: Senior High School*

| | | |
|---|---|---|
| | **Reference Skills**<br>*Grades 9-12*<br>-use standard measuring devices to collect data (150)<br>**Thinking Skills**<br>*Grades 9-12*<br>-use experience to estimate values of quantitative data (125)<br>-identify the variables acting on a phenomenon and select those to be observed in an investigation (150)<br>-note related changes in variables (151) | -use information from resources or evidence obtained from investigations to develop mental models that explain phenomena (151)<br>-use initial information to ask questions that are structured so that they can be answered by investigation (153)<br>-use prior knowledge and experience to generate testable hypotheses (153)<br>**Information Evaluation Skills**<br>*Grades 9-12*<br>-select data that are relevant and accurate (150) |

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| *Concept 3* **Organize Information** | *Concept 4* **Present Information** | *Concept 5* **Enjoy Literature** |
|---|---|---|
| **Description and Classification Skills**<br>*Grades K-2*<br>-order by magnitude of measurable characteristics (83)<br>-use characteristics of objects to group them (83, 86)<br>*Grade 3*<br>-use observed characteristics of objects or events to develop verbal descriptions of them (102) | **Oral and Written Skills**<br>*Grades K-2*<br>-describe thought process used to reach a conclusion (17, 81) | |
| | | |
| **Description and Classification Skills**<br>*Grades 4-6*<br>-use the common characteristics of sets of objects or events to develop definitions that include the members of those sets (102)<br>-use observed characteristics of objects or events to develop verbal descriptions of them (102)<br>**Analysis Skills**<br>*Grades 4-6*<br>-see relationships among objects and events (101) | | |
| | | |
| **Description and Classification Skills**<br>*Grades 7-8*<br>-make accurate observations of objects or events, using the senses or instruments to aid the senses (124)<br>-use the common characteristics of sets of objects or events to develop definitions that include the members of those sets (126)<br>**Analysis Skills**<br>*Grades 7-8*<br>-see relationships among objects and events (124)<br>-note exceptions to the patterns (124)<br>-increase the value of data by organization and systematic display (125)<br>-use characteristics of objects or events to group them by noting similarities (125)<br>-use the results of analyzing data to interpret the meaning and significance of an investigation (126) | **Oral and Written Skills**<br>*Grades 7-8*<br>-use words, symbols, and diagrams to explain the results of an investigation (126) | |
| | | |
| **Description and Classification Skills**<br>*Grades 9-12*<br>-use characteristics of objects or events to group them by noting similarities (151)<br>**Analysis Skills**<br>*Grades 9-12*<br>-use applied mathematics to organize quantitative data (151)<br>-use tables, charts, and matrixes to systematize data (151)<br>-use a variety of graphing techniques to expose patterns in data (151)<br>-use the results of analyzing data to interpret the meaning and significance of an investigation (151) | **Oral and Written Skills**<br>*Grade 9-12*<br>-use a variety of techniques to communicate the results of investigations to others (151)<br>-use words, symbols, and diagrams to explain the results of an investigation (151) | |

## *Social Studies: Primary Grades*

| *Concept 1* **Locate Information** | *Concept 2* **Select, Evaluate and Synthesize Information** | |
|---|---|---|
| **Location Skills**<br>*Grade K*<br>-gather information from several sources in order to make decisions as citizens, workers, and consumers (35)<br>*Grades 1-2*<br>-interact with resource persons, know community leaders (39, 45) | **Reference Skills**<br>*Grade 1*<br>-gather information from a variety of sources such as films, pictures, and field trips and record observations and data (39)<br>-become familiar with maps and globes (41, 43, 44)<br>**Word Analysis and Reading Skills**<br>*Grades K-3*<br>-recognize main ideas, note unusual information, check definitions and terms, select most relevant information, and paraphrase [112] | -develop vocabulary and concepts [113]<br>**Information Evaluation Skills**<br>*Grade K*<br>-examine pictures that show people from different cultures and countries doing similar tasks and read stories about how people work together (35) |

## *Social Studies: Intermediate Grades*

| | | |
|---|---|---|
| **Classification Skills**<br>*Grades 4-6*<br>-use the Dewey decimal system [112] | **Reference Skills**<br>*Grade 4*<br>-apply beginning research skills through contact with historical materials such as maps, photographs, documents, and artifacts (52)<br>-seek new information from ever widening sources . . . . basic library skills should be introduced (52)<br>-refine skills such as classifying information (52)<br>-learn that special maps tell us special stories about our state, region, nation, and world (53)<br>*Grades 4-6*<br>-learn foundation skills: observing, classifying, ordering, spatial relationships [110]<br>-learn processing skills: predicting, translating, measuring, quantifying, interpreting, analyzing, inferring, hypothesizing, imagining [111] | -investigate a problem of interest [116]<br>-do a library search on some aspect of class or course of study that intrigues the learner [116]<br>*Grade 5*<br>-be introduced to primary sources and develop skills of social history using biographies, graphic resources, computer data bases, and maps to obtain information about the U.S. and its people (57)<br>**Word Analysis and Reading Skills**<br>*Grades 4-6*<br>-organize and monitor own reading for pace and purpose [113]<br>-read for meaning [113]<br>-read critically [113]<br>**Information Evaluation Skills**<br>*Grades 4-6*<br>-evaluate sources of information [112] |

## *Social Studies: Junior High/Middle School*

| | | |
|---|---|---|
| **Location Skills**<br>*Grades 7-8*<br>-use daily newspapers and weekly magazines to study current events (73)<br>-locate and use reference materials and data sources productively, including *Readers Guide* [112] | **Reference Skills**<br>*Grades 7-8*<br>-read, gather, observe, and organize information from a multiplicity of sources [112]<br>-conduct research, prepare positions, draft bills, and engage in debates in committee and in general assembly [121]<br>-use a data base as a primary source [162]<br>**Thinking Skills**<br>*Grades 7-8*<br>-develop, consider, and evaluate alternatives [112] | **Word Analysis and Reading Skills**<br>*Grades 7-8*<br>-read critically and analytically [112]<br>**Information Evaluation Skills**<br>*Grades 7-8*<br>-judge the integrity of sources [112]<br>-assess information via computer [116] |

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| *Concept 3*<br>**Organize Information** | *Concept 4*<br>**Present Information** | *Concept 5*<br>**Enjoy Literature** |
|---|---|---|
| **Description and Classification Skills**<br>*Grades K-3*<br>–compare, contrast, and classify to recognize similarities and differences [112]<br>–classify toys by theme and age [122] | | **Literary Enjoyment**<br>*Grades K-3*<br>–reflect on reading (113)<br>**Literature and Society**<br>*Grades K-3*<br>–relate reading to previous experiences and reading [113] |
| | | |
| **Description and Classification Skills**<br>*Grades 4-6*<br>–record sources of information, and develop note-taking and outlining systems [112]<br>**Analysis Skills**<br>*Grades 4-6*<br>–read, interpret, and construct graphs, charts, drawings, pictures, and cartoons [114]<br>–organize information (119)<br>–compare and contrast (119)<br>**Computer Skills**<br>*Grades 4-6*<br>–operate computers to enter, retrieve, and analyze data [114] | **Oral and Written Skills**<br>*Grades 4-6*<br>–work cooperatively to prepare reports and presentations [112]<br>*Grade 6*<br>–do more elaborate group projects including debates, panel discussions, and small group presentations (61)<br>–prepare group research reports (61)<br>**Other Media Skills**<br>*Grades 4-6*<br>–communicate in graphic forms (119)<br>*Grade 6*<br>–take part in role-playing and simulation games such as a mock world court session or a senate hearing (61) | **Comprehension Skills**<br>*Grades 4-6*<br>–practice reasoning through use of contemporary science fiction, literary or artistic applications [116] |
| | | |
| | **Other Media Skills**<br>*Grades 7-8*<br>–create a video or tape presentation of a problem, issue, or human story [116] | |

# *Social Studies: Senior High School*

| *Concept 1* **Locate Information** | *Concept 2* **Select, Evaluate and Synthesize Information** | |
|---|---|---|
| **Location Skills**<br>*Grades 8-9*<br>-use daily newspapers and weekly magazines to study current events (73)<br>*Grades 9-12*<br>-use specialty libraries, interlibrary loan, WISCAT**, and other information cataloging systems [112]<br>-use online data bases, computer searches, information networks, and computer data bases [112, 114]<br>*Grade 11*<br>-use resource materials such as a media collection . . . maps and journals (92)<br>-use biographies, the arts, and literature to supplement studies (93) | **Reference Skills**<br>*Grades 9-10*<br>-learn the skills related to historical inquiry (78)<br>-develop skills related to preparing and using timelines, genealogical tables, and diagrams; studying historical maps; evaluating information from several sources (78)<br>*Grades 9-12*<br>-learn operational skills including search, communication, quantitative/interpretive social judgment, and decision making [109]<br>-synthesize information/ideas from a variety of information sources using written, graphic, or oral forms of expression [116]<br>*Grade 12*<br>-understand the frame of reference, research strategies, and investigative tools (98) | -describe the way people involved in a discipline or area of study conduct research to gain new knowledge (98)<br><br>**Thinking Skills**<br>*Grades 9-12*<br>-choose appropriate samples for data collection [114]<br><br>**Information Evaluation Skills**<br>*Grades 9-10*<br>-examine key questions and critical events from various perspectives through independent research and cooperative study (78)<br>*Grades 9-12*<br>-substantiate ideas using gathered data and logic [112] |

**WISCAT (Wisconsin Catalog) is a statewide computerized data base of materials owned by libraries around the state. It is administered by the Department of Public Instruction's Division for Library Services. WISCAT can be consulted in a number of school and public libraries or through interlibrary loan.

| *Concept 3*<br>**Organize Information** | *Concept 4*<br>**Present Information** | *Concept 5*<br>**Enjoy Literature** |
|---|---|---|
| **Description and Classification Skills**<br>*Grades 9-12*<br>–use quotations and citation of sources [112]<br>–cross-reference ideas [112]<br>–gather and organize information (120) | **Oral and Written Skills**<br>*Grades 10-11*<br>–write reports, interpretations, book reports, and so on (86)<br><br>**Other Media Skills**<br>*Grades 9-12*<br>–communicate knowledge in a variety of forms, including reports, persuasive essays, journals, news articles, graphic displays, stories, speeches, videos, and poems [113]<br>–design a computer program [116] | **Literature and Society**<br>*Grade 11*<br>–enrich understanding of the various periods of history by reading the literature of the times (95)<br>–learn about history through the literature, art, and music of the times (95) |

The following are statements from the five Wisconsin Department of Public Instruction subject-area curriculum guides upon which this document is based. These are *A Guide to Curriculum Planning in English Language Arts, A Guide to Curriculum Planning in Mathematics, A Guide to Curriculum Planning in Reading, A Guide to Curriculum Planning in Science,* and *A Guide to Curriculum Planning in Social Studies.*

Those developing library media and information skills curriculums and services can use the statements quoted below as evidence of the need for such curriculums and for library media centers in schools. The statements describe general expectations for students which are neither specific skills nor concepts in any one discipline, but which imply a need for library media or information skills or resources. Some suggest ideas for media-oriented activities and others imply materials which library media centers should have for students to use.

*There is reason to believe that instructional materials and quality of teaching in the early grades can significantly influence higher level achievement at high school and college.*
*—Jeanne Chall*

Statements are divided below into broad general categories—library media centers, materials selection, media use, computer use, literature and reading, and thinking skills. They are subdivided by subject-area curriculum guide within these categories.

The majority of statements quoted refer to building-level or district-level programs without indications of grade levels. Grade levels are cited only when they were specifically mentioned in the curriculum guides.

## Library Media Centers

The curriculum guide authors call them school libraries, library media centers (LMCs), or instructional media centers (IMCs), but most indicate that these facilities are crucial to supporting classroom activities, fostering independent study, and helping students become lifelong learners.

*The school library media program that is fully integrated into the school's curriculum is central to the learning process.*
—Information Power: Guidelines for School Library Media Programs

### *Language Arts Curriculum Guide*

What can parents do to improve their children's language? Parents can . . . encourage children to move through a variety of language settings, e.g., taking them to libraries, promoting free reading and writing . . . . (29)

It is important that teachers and parents make library experiences a part of children's lives, especially very young children who are unable to read by themselves . . . . (49, grades K-3)

Library time, both structured and browsing time, is built into the regular program as an essential part of the curriculum (*in* Table 3: Program and Student Evaluation/Literature). (53)

In planning lessons, teachers provide many opportunities for all students to use, to browse, and to enjoy the library (*in* Table 3: Program and Student Evaluation/Literature). (53)

*Reading Curriculum Guide*

The following questions will help curriculum planners and teachers evaluate the effects of a personal reading program . . . . What is the usage of library books by various classes or individuals? (64)

The Scope and Sequence: Attitudes and Interests chart includes these criteria for fostering reading.

- Teacher schedules regular trips to school and community libraries (65, grades 1-2)
- Teacher guides students' use of library (66, grades 2-3)

*Analyses of schools that have been successful in promoting independent reading suggest that one of the keys is ready access to books.*
—Becoming a Nation of Readers

The important feature of a library media center is the variety of the level, format, interest, and style of its resources. A well-stocked and professionally staffed library provides challenge and satisfaction, serving as a vital link between reading and pleasure. (135)

The librarian might conduct some reading class sessions in the library rather than in the classroom. This will help to reinforce the concept that reading is more than a school subject and that library materials are an integral part of the reading program. (147)

*Social Studies Curriculum Guide*

The district should develop and maintain a social studies professional library. (138)

What is the nature of the social studies professional library? Are the resources current? Is there a provision for suggesting new acquisitions . . . ? (142)

## Materials Selection

*A comprehensive school library media program offers students and teachers a variety of alternatives for accomplishing learning objectives.*
—Information Power: Guidelines for School Library Media Programs

The wide variety of materials in all formats that library media centers can provide help to broaden student exploration and understanding of subjects they study first in the classroom. Related materials that appeal to student interests can keep them motivated to learn.

*Language Arts Curriculum Guide*

The [language arts] task force recommends that a school district plan, coordinate, and implement its English Language Arts/Literature program from kindergarten through 12th grade so that all students will have an opportunity to read and study both classical works and worthwhile contemporary material. (xi)

. . . the teacher, aided by enthusiasm, creativity, and access to multiple materials, must plan and organize carefully to accomplish the goals identified for a specific group of students. (44)

Storytelling, wordless picture books, concept books which help children develop the ability to generalize, poetry and song books, as well as easy-to-read books, provide young children with a rich introduction to literature. They also serve as stimulus for related activities contributing to strong motivation for leading children into reading . . . . (49, grades K-2)

*Working in concert with the classroom teacher, the library media specialist can help identify appropriate materials and make them available to students.*
—*Wisconsin Department of Public Instruction*, School Library Media Programs: A Resource and Planning Guide

At different stages in their lives, students should have opportunities to explore the widest possible range of literary topics: animal stories, adventures, mysteries, science fiction, fantasy, humor, sports, family life, romance, personal growth, social movements, biographies, history, and science. (50)

. . .ample opportunity should exist for students of all ages to select materials for their own reading, viewing, and listening. (51)

The literature program makes available a wide variety of quality print and nonprint materials that appeal to students of different ages, interests, and ability levels (*in* Table 3: Program and Student Evaluation/Literature). (53)

The school library is well supplied with materials that reflect cultural diversity (*in* Table 3: Program and Student Evaluation/Literature). (53)

Teachers, librarians, and school officials must be free to select materials appropriate to the levels of their students and the curriculum of the schools. (224)

*The collection includes materials to meet the needs of all learners, including the gifted, the mentally, physically, and emotionally impaired, and those who are culturally disadvantaged or from linguistic minorities*
—Information Power: Guidelines for School Library Media Programs

Teachers, librarians, and school officials must encourage students to identify appropriate and varied sources of knowledge. (224)

### *Reading Curriculum Guide*

A variety of reading materials must be provided so that students can experience the different ways reading can be personally rewarding. Reading to relax, to satisfy curiosity, and to gain new information are important benefits. (63)

Teachers at every grade level and in every subject area should . . . make available and encourage students to read a wide range of materials (63)

*Developing the ability to think clearly, critically, and creatively depends on a steady flow of information . . . . The school library media program provides an abundance of appropriate learning resources in many formats.*
—Information Power: Guidelines for School Library Media Programs

The Scope and Sequence: Attitudes and Interests chart includes these recommendations for encouraging reading.

- Teacher provides reading materials to match student interests (66, grades 2-3)
- Teacher provides trade books to enrich content-area study (66, grades 2-3, grades 4-6)
- Teacher provides materials and reading activities to match interests (66, grades 4-6)
- Teacher makes accessible a wide range of content-related fiction and nonfiction materials of varying difficulty (66, grades 4-6)
- Teacher exposes students to a variety of popular, high quality trade books, magazines, and newspapers for current and future use (67, grade 7-8)

Silent reading allows all groups to enjoy library and related materials. Library or trade books are excellent tools for prediction and inference practice. (115)

The main character(s) [in circle or pattern stories] starts at one location and, after a series of adventures, returns to the starting point to live happily ever after. . . . library books and basals are good sources for these stories . . . . (117)

Basal readers and subject texts are certainly important components of a comprehensive reading program. However, their inadequacies point to the need for teachers to recognize that a variety of other reading materials helps to ensure effective reading development and learning in all subjects. Nontraditional materials such as magazines, newspapers, trade books, nonfiction and fiction books, poems, plays, and song lyrics are necessary to relate basal and subject texts to the environment and interests of young people. (130)

*As the chief building administrator, the principal ensures that the school library media program has adequate resources to carry out its mission . . . .*
—Information Power: Guidelines for School Library Media Programs

If students are expected to read widely and frequently, a variety of books and other supplementary materials must be available in the classroom and in the school library. (131)

Trade books, reference works, and periodicals are important in the development of well-rounded mature readers. Therefore, it is important that students have access to a library or instructional media center (IMC) and the services of a librarian. . . . A librarian can be helpful by assisting in the selection of books . . . . (147)

### *Social Studies Curriculum Guide*

Selecting related children's literature integrates social studies and reading within the study of communities and culture. (47, grade 3)

Since inquiry-oriented skills are emphasized, the use of a wide variety of materials in libraries and media centers is encouraged. Students

should be asked to examine key questions and critical events from various perspectives through independent research and cooperative study. (78, grades 9-10)

Knowledge: Traditional--Great literary classics (*in* Table 1: Examples of Thinking Processes). (116)

Students in the social studies program should have access to a range of research materials on topics studied during the year. (Reference materials should include both print and nonprint . . . and reflect several viewpoints.) (140)

The social studies program should have the following examples of instructional resources available for students: textbooks (current); reference books (several varieties); supplementary materials (print and nonprint); computers and software; films, filmstrips, and film loops; audiotapes or records; radio/record player; TV/videodisks or tapes; maps, globes, and charts; library resources . . . . (141)

*The mission of the library media program is to ensure that students and staff are effective users of ideas and information.*
—Information Power: Guidelines for School Library Media Programs

## Use of Media

The well-equipped library media center can be the place where students supplement reading with videos, tapes, records, and computer software programs. They also can learn in the LMC how to produce media presentations themselves for classroom and other uses.

### *Language Arts Curriculum Guide*

The [language arts] task force recommends that students at all levels . . . be given every reasonable opportunity to communicate, using such media as word processors and audio or videotape . . . . (xiii)

Whether through television, radio, or word processors, technology is rapidly developing new ways to communicate. Students need to understand the effect each medium has on communication and should have opportunities to use as many of these media as possible. (8)

Literature study is enhanced by the use of more than printed materials. Records and tapes, films and filmstrips, dramatic presentations, computer software such as interactive fiction programs, and radio and television programs make important contributions . . . expanding students' literary horizons. (51)

As teachers begin to increase the role of media, they should remember that the integration of electronic media should include

- opportunities for students to create their own mediated materials.
- the integration of mediated materials with print-based materials.
- chances to explore *all* media.
- explorations of the latest media. (195)

*By assuming a leadership role in the use of technology in the school, the library media specialist promotes effective use of instructional technologies and facilitates their full integration into the curriculum.*
—Information Power: Guidelines for School Library Media Programs

*The school library media program includes the sharing of ideas and stories through storytelling, slide and video productions, and dramatic presentations.*
—Information Power: Guidelines for School Library Media Programs

Table 21: Program Evaluation/Media includes these criteria under "Curriculum and Resources."

- Nonprint media are accessible to all students.
- The program integrates print and nonprint media.
- Students at all grade levels have adequate opportunity to use media.
- Students of all ability levels have access to media production. (197)

### *Reading Curriculum Guide*

There are several effective uses of a listening center to reinforce comprehension skills and develop listening skills. The following kinds of lessons can be taped for student use in the listening center . . . . Basal stories or stories from literature or information books related to the topic discussed . . . . (121)

### *Social Studies Curriculum Guide*

Audiovisual activities can be a rich source of motivation and information required to develop a frame of reference for global considerations. (65, grade 7)

Taking-in Processes—Seeing films and other audiovisuals (*in* Table 1: Examples of Thinking Processes). (116)

Taking-in Processes—Listening to lectures, video presentations, tapes, and records (*in* Table 1: Examples of Thinking Processes). (116)

## Computer Use

The computer is the major learning tool of the Information Age. Media centers can include collections of software and even computer laboratories. Trained library media professionals can support classroom activities and also help students use computers on their own for a variety of learning tasks.

*Although computer use in public education is still in its infancy, schools around the nation are beginning to realize that in the information society, the two required languages will be English and computer.*
—*John Naisbitt*, Megatrends

### *Language Arts Curriculum Guide*

The [language arts] task force recommends that students learn about electronic media by using them rather than by reading about them. (xiii)

A strong case can be made for including keyboard training at the elementary level. (152, grades K-6)

. . . in those school districts where computers have become a learning and communication resource, the computer itself can help train its users in keyboarding skills. Several exceptional computer programs are available to teach students keyboarding skills while they use the computer and in a minimal amount of time. (152)

Table 21: Program Evaluation/Media includes these criteria under "Curriculum and Resources."

- Adequate computer resources are available for word processing and other related activities.
- Students have access to electronic data retrieval systems. (197)

### *Mathematics Curriculum Guide*

The graphics capabilities of microcomputers should enable teachers to provide highly detailed demonstrations of the behavior of special functions, to illustrate concepts . . . , to explore the effects of transformation on functions, and to develop in a dynamic manner topics such as area under a curve . . . . (57)

Technology can be a highly effective classroom tool for concept development, for practice of skills and concepts, and for the development of problem-solving strategies. (57)

### *Science Curriculum Guide*

The most effective computer usage in science education, although limited in possible applications, is to use computers directly in an interactive system for data gathering and analysis. (72)

Well-developed computer software can add dynamic and interactive versatility to the learning process. (72)

List the ways that computers are used in work or business by parents or relatives of students (*in* Objectives, Example Subobjectives, Activities: Science, Technology, and Society). (113, grades 3-6)

### *Social Studies Curriculum Guide*

During the last decade, computers invaded the schools and today many schools have one or more computers available to teachers and/or students. A number of schools have set up well-equipped computer laboratories. Other schools have placed . . . computers in individual classrooms. Still others have decided to place computers in the media center. These decisions have an impact on instruction. (152)

Since numerous individual and commercial software producers exist, it may be useful to refer to one or more software directories or computer magazines that describe, review, and often evaluate software programs. (158)

. . . everyone should have enough general understanding of what the data managers are up to that they can act wisely as citizens and con-

*If children are to be prepared for a future characterized by change, they must learn to think rationally and creatively, to solve problems, to manage and retrieve information, and to communicate effectively.*
—Information Power: Guidelines for School Library Media Programs

*Education is the acquisition of the art of the utilization of knowledge.*
—*Alfred North Whitehead*

sumers. Social studies programs can provide students the necessary knowledge. (159)

*All students should be taught how to do online searches and to use new information technologies . . . .*
—*Wisconsin Department of Public Instruction*, School Library Media Programs: A Resource and Planning Guide

Within the context of [the] information explosion, the data base management system is one of the most important tools. Almost every social topic—whether it be unemployment, poverty, [or] national power—is measured and recorded and then remeasured through time to monitor trends. (159)

. . . the DBMS [data base management system] can provide more sophisticated answers . . . . The results can be entered onto a map or graph. Students can ask interpretive questions. (161)

Enough information exists for a sequential data base on United States history related to its rise as an industrial nation and world power, growth of the labor movement, improvement in health and education, and the rising standard of living. Use of data in timelines takes on a whole new dimension in the classroom. (161)

Exposing students to social data is a big step towards giving them undigested data to work with rather than generalizations to recall. . . . these data represent only a narrow range of experience in the spectrum of historical research, but it is a good dimension in the Information Age. (162)

Cultural and world studies . . . present an ideal opportunity to introduce a data base management system. . . . the computer can do much of the work of searching, sorting, manipulating, and reporting. (162, grades 6-9)

## Literature and Reading

*Current trends in reading instruction reinforce many of the traditional goals and objectives of school library media professionals.*
—Information Power: Guidelines for School Library Media Programs

Library media centers play a central role in encouraging reading development and sustaining interest in reading. They provide varieties of materials to engage and appeal to student interests, support classroom reading activities, and facilitate development of lifelong readers and learners.

### *Language Arts Curriculum Guide*

The [language arts] task force recommends that

- a district offer . . . opportunities for all students to experience both free and guided reading.
- the enjoyment of good reading materials be a primary goal of the literature program for students in all grade levels.
- all students be given opportunities to respond to literature in creative and enjoyable ways through writing, speaking, drama, and the visual arts. (xi)

The study of literature provides an especially rich opportunity for developing semantic sensitivity, not only because students are exposed to the history of words when they read older works, but also because literature is particularly dependent upon subtle distinctions in word meaning to convey its message. Class discussion of literature can very naturally include attention to vocabulary. (23)

During the first reading of any selection, students should be encouraged to enjoy the literary work. Analysis of it may follow. (37)

Literary works provide encounters with new places, different time periods, and a wide variety of people, male and female, representing the rich mosaic of ethnic and minority groups. (37)

*Students of all ages would benefit from a renewed instructional focus on the more complex comprehension skills and strategies.*
—Reading Report Card (1985)

Reading good literature also provides opportunities for students to respond aesthetically, to consider and appreciate the beauty of high-quality literature, both past and present. (37)

The goals of a quality K-12 literature program include experiences designed to develop students' lifelong habit of reading. (41)

Most students want and need to think and talk about what they have read. (42)

All students enjoy reading literary works in which they can become personally involved. (48, grades K-12)

Older students . . . will continue to find reading an important part of their lives if

- they are given time to read.
- they are surrounded with reading materials within their spectrum of reading interests.
- they read within a supportive, nonthreatening situation. (50)
- they can share their reading experiences.
- they have readily available reading material. (50)

*The library media program is seen as vital for motivating young people to select and read printed materials with pleasure, to reach for more complex levels of expression and comprehension, and to evaluate these experiences critically.*
—Information Power: Guidelines for School Library Media Programs

It is especially important to recognize that teenage interests need to be nurtured since these students are still passing through reading phases reflecting growth and change in their literary tastes . . . . (50)

The study of literature is viewed both as an end unto itself and as a springboard for developing listening, speaking, reading, and writing skills (*in* Table 3: Program and Student Evaluation/Literature). (53)

How can parents help promote effective listening? Parents can read aloud to children often, repeating the stories and poems they request as often as they want to hear them. (83, grades K-6)

*Reading Curriculum Guide*

*Library media specialists must seize the opportunity offered by the renewed concern with literacy to exercise both leadership and support in their schools.*
—Information Power: Guidelines for School Library Media Programs

The true test of teaching effectiveness is the students' ability to use various word analysis strategies when reading independently. . . . Following instruction students should have many opportunities to practice their skills with meaningful reading materials. (37)

Teacher provides independent reading time (*in* Scope and Sequence: Word Analysis). (39, grades 1-2)

The chart Scope and Sequence: Responding in Writing lists these guidelines for encouraging writing.

- Teacher uses children's literature as a model for students' writing
- Teacher uses informational books as a model for students' writing (61, grades 1-2)

Teachers at every grade level and in every subject area should

- read aloud to students
- model desirable reading behavior
- provide time for personal reading
- encourage personal reading (63)

The following questions will help curriculum planners and teachers evaluate the effects of a personal reading program.

- Does information from a public librarian indicate enthusiasm towards reading among students?
- What comments are heard from students about books they are reading independently?
- What is the quality of choices made by students during silent, independent reading times?
- How much use is made of independent reading in various subject areas? (64)

*The test of great teachers is whether they have helped their students to independence, to doing without them.*
—*Edgar Dale*

The Scope and Sequence: Attitudes and Interests chart lists these guidelines for encouraging student interest in reading.

- Teacher provides bulletin boards, books, and writing and listening centers to encourage reading and writing (66, grades 2-3)
- Teacher surveys silent-reading interests and habits (66, grades 4-6)
- Teacher makes vigorous effort to spark enthusiasm and further develop reading tastes by reading aloud, modeling reading behaviors, providing time for reading (66, grades 7-8)
- Teacher provides opportunities to increase the breadth and depth of students' reading, including such options as independent study, book clubs, study groups, special reading classes, arrangements with local . . . interlibrary loan networks (67, grades 9-12)

Background lessons are best used when a basal story lends itself to a theme that can be developed through experiences throughout the day or week . . . . the teacher might gather a variety of related reading material

for both silent reading and reading aloud. . . . independent silent reading provides a welcome change. (115)

The strategy of semantic mapping is taught. . . . When sufficient progress has been made, some students can share work with the entire class. Suggestions and discussion naturally follow. Finally the teacher reads a good library book to the entire class. (118)

Individual choice reading is an integral part of any comprehension reading program, reinforcing formal skills and promoting a general interest in reading. (121)

*Education is a problem of getting our bearings, of developing orientation, of discovering in what direction to go and how to get there.*
*—Edgar Dale*

Students with a common reading interest may form groups to discuss their reading. Interest groups may be formed around a specific book, a series by the same writer, or a topic. (121)

Students need to both read and be read to by their teachers. It is imperative at all levels that teachers spend some time each day reading to their students, and encouraging book sharing through a variety of experiences. (122)

The Library or the Instructional Media Center (IMC) is the best single source in the school to support and extend learning and to help develop reading. A school's library or IMC offers a rich variety of resources, including books and other media, physical space for individualized learning activities, and professional library media specialists. (134)

Examples of reading events that can be initiated by librarians (or shared with specialists, teachers, parents, and others) are reading contracts, read-a-thons, and school read-ins (147)

*Library media specialists are concerned about meeting the changing and complex needs of students, teachers, and others they serve . . . .*
—Information Power: Guidelines for School Library Media Programs

The librarian might conduct some reading class sessions in the library rather than in the classroom. (147)

### *Science Curriculum Guide*

Reading should be an important activity in studying science. Not only is reading a source of information of all kinds for the science student, but science is a curricular area in which reading proficiency can be developed. (68)

### *Social Studies Curriculum Guide*

. . . opportunities should be provided for studying independently, researching, reading journal accounts, and writing position papers. A local history project provides an opportunity to heighten interest in history and allows students to learn and apply the craft of the historian. (68-69, grade 8)

The content included in world studies is a key to literacy as students are introduced to great works that have enlightened humankind; grapple with troubling questions that have challenged humans throughout history; and examine social, political, and economic forces that have moved people and nations throughout the ages. (77, grades 9-10)

Taking-in Processes—Reading widely (*in* Table 1: Examples of Thinking Processes) (116)

## Thinking Skills

Critical thinking and problem solving characterize the educated citizen. Library media centers provide materials in a variety of formats that teachers can use with students and that students can use independently to develop abilities to question, analyze, order, and evaluate. The well-equipped LMC also will provide ample resources for student research and data gathering.

*Library media specialists serve as advisors to students as they select appropriate resources for personal and academic needs.*
—Information Power: Guidelines for School Library Media Programs

### *Language Arts Curriculum Guide*

The [language arts] task force recommends that
- the program emphasize language in all its forms—listening, speaking, reading, writing, and using media—as means of communication.
- the program foster thinking, learning, creating, and imagining as well as mastery of the conventions of language. (xi)

The goals of a quality K-12 literature program include experiences designed to foster student language growth and provide models of writing. (41)

### *Mathematics Curriculum Guide*

Organize techniques related to measuring using selected arbitrary units of measure (*in* Table 2: Measurement Objectives) (28, grades K-3)

Experiences to develop these relationships [spatial relationships of plane and solid geometry] should rely heavily on the use of manipulative devices as children explore, investigate, and discover the geometry of familiar objects. (35)

*The whole art of teaching is only the art of awakening the natural curiosity of young minds for the purpose of satisfying it afterwards.*
*—Anatole France*

The new emphasis placed on problem solving involves changing the focus from exclusively finding answers to word problems to the acquisition of many problem-solving skills and strategies. Students should then be able to apply these strategies to a wide variety of unfamiliar problem situations. (72)

. . . broad consensus on the need to incorporate calculus and computers, as well as additional data analysis, into the K-12 curriculum . . . (*in* Appendix D: The Mathematical Sciences Curriculum K-12: What Is

Still Fundamental and What Is Not: Report to National Science Board (NSB) Commission on Precollege Education in Mathematics, Science, and Technology). (187)

### *Reading Curriculum Guide*

The research literature suggests several broad guidelines for effective teaching of critical reading and thinking. An attitude of critical thinking needs to be fostered at all stages and in all areas of the curriculum. (53)

Teacher guides or reinforces reading and writing activities which require thinking, analyzing, evaluating, and organizing subject matter (*in* Scope and Sequence: Responding in Writing) (62, grades 7-8)

*The first object of any art of learning, over and beyond the pleasure it may give, is that it should serve us in the future. Learning should not only take us somewhere. It should allow us later to go further more easily.*
*—Jerome Bruner*

### *Science Curriculum Guide*

The nature of science education requires that problem-solving skills be developed from direct experience. When students are limited to studying written information or watching demonstrations where the results are already known, they cannot develop problem-solving skills. (30, grades 3-6)

The use of simulations is useful in teaching the processes of data analysis and explanation, and to a lesser extent, the processes of questioning and collecting data. (72, grades 3-6)

Basic activities should involve students in . . . talking about their observations (*in* Overview: Grades K-2) (81)

The Objectives, Example Subobjectives, Activities: Science, Technology, and Society chart lists these "Example Subobjectives."
- Technological developments affect the way students and members of their families work. (113, grades 3-6)
- Technological developments affect the way people use their leisure time. (113, grades 3-6)
- Science and technology have been a major force in changing the standard of living in the U.S. (114, grades 3-6)

*Change—rapid and pervasive—may be the single most important characteristic of life in the twentieth century.*
—Information Power: Guidelines for School Library Media Programs

The Objectives, Example Subobjectives, Activities: Science, Technology and Society chart lists these as "Example Activities."
- Identify special equipment in the school that would not have been available for students and teachers to use ten years ago (or when parents went to school). (113, grades 3-6)
- List new developments that students are using for entertainment—computer games, cable or satellite television, compact disk stereo, VCR. Consider this use of time compared to activities not requiring technology—outdoor sports, fishing. (113, grades 3-6)

*Social Studies Curriculum Guide*

*The library media program and staff must contribute actively to the teaching/learning process.*
—*Wisconsin Department of Public Instruction*, School Library Media Programs: A Resource and Planning Guide

Because the spirit of the curriculum is exploration, focused questions can be used to introduce inquiry and library research skills. (47, grade 3)

Integrating social studies curriculum with art, music, and literature can help students . . . develop meaningful and concrete understanding of cultural pluralism and connections. (65, grade 7)

. . . reasoning is a function of a combination of skill competencies, each of which first must be mastered. For example, the ability to infer includes and depends on the ability to classify. Hence, a student must first master classifying before attempting inferring. (109)

The skills network offered . . . has three major levels. The foundational level includes observing, classifying, ordering (seriation), and spatial relationships. (109, grades K-3)

*Knowledge is not a spectator sport!*
—*Thomas C. O'Brien*

. . . in the early grades, the skills of observation, classification, seriation, and spatial relationships should serve as organizers for learning in all disciplines. Later, these same skills should be used as touchstones as more elaborate and abstract applications are learned. (123)